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(54) Title: METHODS AND APPARATUS FOR MAKING IMAGES INCLUDING DEPTH INFORMATION

(57) Abstract: A method for making an image of an object including depth information comprising the steps of: illuminating the object with a periodic pattern of light from an illuminating arrangement; the illuminating arrangement being such that the pattern is in focus in a focal plane and defocuses progressively away from said focal plane; the object being placed such that different parts of it are at different distances from the focal plane; capturing image data from the thus-illuminated object; analysing the captured image data to extract depth information based on the extent of defocussing of the pattern; and displaying an image of the object without the pattern and with depth information. Apparatus for carrying out the method, comprising an illuminating arrangement adapted to illuminate the object with a periodic pattern of light; the illuminating arrangement being such that the pattern is in focus in a focal plane and defocuses progressively away from said focal plane; the object being locatable with respect to the illuminating arrangement such that different parts of it are at different distances from the focal plane; image data capturing means adapted to capture image data from the thus illuminated object; data analysis means adapted to analyse captured image data to extract depth information based on the extent of defocussing of the pattern; and image display means for displaying an image of the object without the pattern and with depth information.

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